Journal of Biomedical Materials Research
Author Index—Volume 55

Agrawal, C. M.
—; Ray, R. B.: Biodegradable polymeric scaffolds for musculoskeletal tissue engineering, 141
Akiyama, H. See Nishio, K., 164
Allemann, F.
—; Mizuno, S.; Eid, K.; Yates, K. E.; Zaleske, D.; Glowacki, J.: Effects of hyaluronan on engineered articular cartilage extracellular matrix gene expression in 3-dimensional collagen scaffolds, 13
Amarante, J. See Santa-Comba, A., 396
Ambrosio, L. See De Santis, R., 629
Anderson, J. M. See Brodbeck, W. G., 661
Asundi, A. See Kishen, A., 121
Atala, A. See Pariente, J.-L., 33

Bae, Y. H. See Park, K.-H., 72
Bahia, F. See Santa-Comba, A., 396
Bao, J. Y. See Luk, A. S., 177
Barbosa, M. A. See Lima, J., 45
Bassett, D. C. See Jordan, N. D., 158
Beernink, R. See van Wachem, P. B., 368
Beugeling, T. See van Wachem, P. B., 368
Bilderbeek, U. See Matter, H.-P., 40
Bing, L. See Cong, Z., 28
Biran, R.
—; Webb, K.; Noble, M. D.; Tresco, P. A.: Surfactant-immobilized fibronectin enhances bioactivity and regulates sensory neurite outgrowth, 1
Black, J. P. See Sefton, M. V., 447
Bobyn, J. D. See Catelas, I., 320
—; See Catelas, I., 330
Bock, N. See Rizzi, S. C., 475
Bombace, M. See Filippini, P., 338
Bonassar, L. J. See Chang, S. C. N., 503
Botchwey, E. A.
—; Pollack, S. R.; Levine, E. M.: Laurencin, C. T.: Bone tissue engineering in a rotating bioreactor using a microcarrier matrix system, 242
Boudeville, P. See Serraj, S., 566
Boxer, S. G. See Kam, L., 487
Boyan, B. D.
—; Lohmann, C. H.; Sisk, M.; Liu, Y.; Sylvia, V. L.; Cochran, D. L.; Dean, D. D.; Schwartz, Z.: Both cyclooxygenase-1 and cyclooxygenase-2 mediate osteoblast response to titanium surface roughness, 350
Branham, M. L. See Ross, E. A., 114
Brennan, A. B. See Oréfice, R. L., 460
—; See Domingues, R. Z., 468
Brodbeck, W. G.
—; Shive, M. S.; Colton, E.; Nakayama, Y.; Matsuda, T.; Anderson, J. M.: Influence of biomaterial surface chemistry on the apoptosis of adherent cells, 661
Brouwer, L. A. See van Wachem, P. B., 415
Brown, P. W. See Greish, Y. E., 618
Bünger, C. See Lind, M., 89
Buttery, L. D. K. See Xynos, I. D., 151

Cahalan, P. T. See van Wachem, P. B., 415
Catelas, I.
—; Bobyn, J. D.; Medley, J. B.; Krygier, J. J.; Zukor, D. J.; Petit, A.; Huk, O. L.: Effects of digestion protocols on the isolation and characterization of metal–metal wear particles. I. Analysis of particle size and shape, 320
—; Bobyn, J. D.; Medley, J. J.; Zukor, D. J.; Petit, A.; Huk, O. L.: Effects of digestion protocols on the isolation and characterization of metal–metal wear particles. II. Analysis of ion release and particle composition, 330
Cenni, E.
—; Ciapetti, G.; Granchi, D.; Savarino, L.; Stea, S.; Corradini, A.; Di Leo, A.: Evaluation of tissue-factor production by human endothelial cells incubated with three acrylic bone cements, 131
Chandy, T. See Das, G. S., 96
Chang, E. See Lee, T. M., 360
Chang, S. C. N.
—; Rowley, J. A.; Tobias, G.; Genes, N. G.; Roy, A. K.; Mooney, D. J.; Vacanti, C. A.; Bonassar, L. J.: Injection molding of chondrocyte/alginate constructs in the shape of facial implants, 503
Chen, C.-N. See Sung, H.-W., 538
Chen, Z. Q. See Yang, Y. Z., 442
—; See Wang, C.-X., 587
Cheng, E. See Sefton, M. V., 447
Chin, R. See Farber, A., 433
Chung, C. P. See Lee, S. J., 295
Ciapetti, G. See Cenni, E., 131
Claes, L. E. See Ignatius, A. A., 285
Clark, A. E. See Oréfice, R. L., 460
—; See Domingues, R. Z., 468
Cochran, D. L. See Boyan, B. D., 350
Colton, E. See Brodbeck, W. G., 661
Cong, Z.
—; Jianxin, W.; Huaizhi, F.; Bing, L.; Xingdong, Z.: Repairing segmental bone defects with living porous ceramic cylinders: An experimental study in dog femora, 28
Coombes, A. G. A. See Rizzi, S. C., 475
Corradini, A. See Cenni, E., 131
Courtman, D. W.
—; Errett, B. F.; Wilson, G. J.: The role of crosslinking in modification of the immune response elicited against xenogenic vascular acellular matrices, 576
Curodeau, A. See Melican, M. C., 194

Das, G. S.
—; Rao, G. H. R.; Wilson, R. F.; Chandy, T.: Controlled delivery of taxol from poly(ethylene glycol)-coated poly(lactic acid) microspheres, 96

Journal of Biomedical Materials Research
Author Index—Volume 55

Agrawal, C. M.
—; Ray, R. B.: Biodegradable polymeric scaffolds for musculoskeletal tissue engineering, 141
Akiyama, H. See Nishio, K., 164
Allemann, F.
—; Mizuno, S.; Eid, K.; Yates, K. E.; Zaleske, D.; Glowacki, J.: Effects of hyaluronan on engineered articular cartilage extracellular matrix gene expression in 3-dimensional collagen scaffolds, 13
Amarante, J. See Santa-Comba, A., 396
Ambrosio, L. See De Santis, R., 629
Anderson, J. M. See Brodbeck, W. G., 661
Asundi, A. See Kishen, A., 121
Atala, A. See Pariente, J.-L., 33

Bae, Y. H. See Park, K.-H., 72
Bahia, F. See Santa-Comba, A., 396
Bao, J. Y. See Luk, A. S., 177
Barbosa, M. A. See Lima, J., 45
Bassett, D. C. See Jordan, N. D., 158
Beernink, R. See van Wachem, P. B., 368
Beugeling, T. See van Wachem, P. B., 368
Bilderbeek, U. See Matter, H.-P., 40
Bing, L. See Cong, Z., 28
Biran, R.
—; Webb, K.; Noble, M. D.; Tresco, P. A.: Surfactant-immobilized fibronectin enhances bioactivity and regulates sensory neurite outgrowth, 1
Black, J. P. See Sefton, M. V., 447
Bobyn, J. D. See Catelas, I., 320
—; See Catelas, I., 330
Bock, N. See Rizzi, S. C., 475
Bombace, M. See Filippini, P., 338
Bonassar, L. J. See Chang, S. C. N., 503
Botchwey, E. A.
—; Pollack, S. R.; Levine, E. M.: Laurencin, C. T.: Bone tissue engineering in a rotating bioreactor using a microcarrier matrix system, 242
Boudeville, P. See Serraj, S., 566
Boxer, S. G. See Kam, L., 487
Boyan, B. D.
—; Lohmann, C. H.; Sisk, M.; Liu, Y.; Sylvia, V. L.; Cochran, D. L.; Dean, D. D.; Schwartz, Z.: Both cyclooxygenase-1 and cyclooxygenase-2 mediate osteoblast response to titanium surface roughness, 350
Branham, M. L. See Ross, E. A., 114
Brennan, A. B. See Oréfice, R. L., 460
—; See Domingues, R. Z., 468
Brodbeck, W. G.
—; Shive, M. S.; Colton, E.; Nakayama, Y.; Matsuda, T.; Anderson, J. M.: Influence of biomaterial surface chemistry on the apoptosis of adherent cells, 661
Brouwer, L. A. See van Wachem, P. B., 415
Brown, P. W. See Greish, Y. E., 618
Bünger, C. See Lind, M., 89
Buttery, L. D. K. See Xynos, I. D., 151

Cahalan, P. T. See van Wachem, P. B., 415
Catelas, I.
—; Bobyn, J. D.; Medley, J. B.; Krygier, J. J.; Zukor, D. J.; Petit, A.; Huk, O. L.: Effects of digestion protocols on the isolation and characterization of metal–metal wear particles. I. Analysis of particle size and shape, 320
—; Bobyn, J. D.; Medley, J. J.; Zukor, D. J.; Petit, A.; Huk, O. L.: Effects of digestion protocols on the isolation and characterization of metal–metal wear particles. II. Analysis of ion release and particle composition, 330
Cenni, E.
—; Ciapetti, G.; Granchi, D.; Savarino, L.; Stea, S.; Corradini, A.; Di Leo, A.: Evaluation of tissue-factor production by human endothelial cells incubated with three acrylic bone cements, 131
Chandy, T. See Das, G. S., 96
Chang, E. See Lee, T. M., 360
Chang, S. C. N.
—; Rowley, J. A.; Tobias, G.; Genes, N. G.; Roy, A. K.; Mooney, D. J.; Vacanti, C. A.; Bonassar, L. J.: Injection molding of chondrocyte/alginate constructs in the shape of facial implants, 503
Chen, C.-N. See Sung, H.-W., 538
Chen, Z. Q. See Yang, Y. Z., 442
—; See Wang, C.-X., 587
Cheng, E. See Sefton, M. V., 447
Chin, R. See Farber, A., 433
Chung, C. P. See Lee, S. J., 295
Ciapetti, G. See Cenni, E., 131
Claes, L. E. See Ignatius, A. A., 285
Clark, A. E. See Oréfice, R. L., 460
—; See Domingues, R. Z., 468
Cochran, D. L. See Boyan, B. D., 350
Colton, E. See Brodbeck, W. G., 661
Cong, Z.
—; Jianxin, W.; Huaizhi, F.; Bing, L.; Xingdong, Z.: Repairing segmental bone defects with living porous ceramic cylinders: An experimental study in dog femora, 28
Coombes, A. G. A. See Rizzi, S. C., 475
Corradini, A. See Cenni, E., 131
Courtman, D. W.
—; Errett, B. F.; Wilson, G. J.: The role of crosslinking in modification of the immune response elicited against xenogenic vascular acellular matrices, 576
Curodeau, A. See Melican, M. C., 194

Das, G. S.
—; Rao, G. H. R.; Wilson, R. F.; Chandy, T.: Controlled delivery of taxol from poly(ethylene glycol)-coated poly(lactic acid) microspheres, 96

Dean, D. D. See Boyan, B. D., 350
De Santis, R.
—; Prisco, D.; Nazhat, S. N.; Riccitiello, F.; Ambrosio, L.; Rengo, S.; Nicolais, L.: Mechanical strength of tooth fragment reattachment, 629
Dhillon, M. S. See Melican, M. C., 194
Dijkstra, P. J. See van Wachem, P. B., 415
Di Leo, A. See Cenni, E., 131
Domingues, R. Z.
—; Clark, A. E.; Brennan, A. B.: A sol-gel derived bioactive fibrous mesh, 468
Downes, S. See Rizzi, S. C., 475

Edgar, A. J. See Xynos, I. D., 151
Eid, K. See Allemann, F., 13
Ekşioğlu, F. See Korkusuz, F., 217
El-Ghannam, A.
—; Hamazawy, E.; Yehia, A.: Effect of thermal treatment on bioactive glass microstructure, corrosion behavior, ζ potential, and protein adsorption, 387
Engbers, G. H. M. See van Wachem, P. B., 368
Errett, B. F. See Courtman, D. W., 576

Farber, A.
—; Chin, R.; Song, Y.; Huie, P.; Goodman, S.: Chronic antigen-specific immune-system activation may potentially be involved in the loosening of cemented acetabular components, 433
Feijen, J. See van Wachem, P. B., 368
—; See van Wachem, P. B., 415
Ferrante, A. See Rainaldi, G., 104
—; See Filippini, P., 338
Ferreira, A. See Lima, J., 45
Filippini, P.
—; Rainaldi, G.; Ferrante, A.; Mecheri, B.; Gabrielli, G.; Bombace, M.; Indovina, P. L.; Santini, M. T.: Modulation of osteosarcoma cell growth and differentiation by silane-modified surfaces, 338
—; See Rainaldi, G., 104
Freed, L. E. See Martin, I., 229
Fukuizumi, T. See Matsunaga, T., 313
Fukuzaki, H. See Yamaguchi, I., 20

Gabrielli, G. See Filippini, P., 338
Gao, J. See Qian, F., 512
Garrel, T. v., See Matter, H.-P., 40
Gemeinhart, R. A.
—; Park, H.; Park, K.: Effect of compression on fast swelling of poly(acrylamide-*co*-acrylic acid) superporous hydrogels, 54
Gemmell, C. See Sefton, M. V., 447
Genes, N. G. See Chang, S. C. N., 503
Glowacki, J. See Allemann, F., 13
Goldberg, H. A. See Hunter, G. K., 496
Goodman, S. See Farber, A., 433
Goodman, S. B. See Lind, M., 89
Gorbet, M. See Sefton, M. V., 447
Granchi, D. See Cenni, E., 131
Greish, Y. E.
—; Brown, P. W.: Characterization of wollastonite-reinforced HAp–Ca polycarboxylate composites, 618
Grynpas, M. D. See Hunter, G. K., 496
Gürsel, İ. See Korkusuz, F., 217

Haishima, Y.
—; Murai, T.; Nakagawa, Y.; Hirata, M.; Yagami, T.; Nakamura, A.: Chemical and biological evaluation of endotoxin contamination on natural rubber latex products, 424
Hamazawy, E. See El-Ghannam, A., 387
Hamilton, G. See Seifalian, A. M., 637
Han, Y.
—; Xu, K.; Lu, J.: Dissolution response of hydroxyapatite coatings to residual stresses, 596
Hasırcı, V. See Korkusuz F., 217
Heath, D. J. See Rizzi, S. C., 475
Hench, L. L. See Xynos, I. D., 151
—; See Oréfice, R. L., 460
Hendriks, M. See van Wachem, P. B., 415
Hirata, M. See Haishima, Y., 424
Hirose, M. See Yamato, M., 137
Huaizhi, F. See Cong, Z., 28
Huang, R.-N. See Sung, H.-W., 538
Hubbell, J. A. See Kao, W. J., 79
Huie, P. See Farber, A., 433
Huk, O. L. See Catelas, I., 320
—; See Catelas, I., 330
Humphrey, J. D. See Salunke, N. V., 236
Hunter, G. K.
—; Poitras, M. S.; Underhill, T. M.; Grynpas, M. D.; Goldberg, H. A.: Induction of collagen mineralization by a bone sialoprotein–decorin chimeric protein, 496
Hutmacher, D. W.
—; Schantz, T.; Zein, I.; Ng, K. W.; Teoh, S. H.; Tan, K. C.: Mechanical properties and cell cultural response of polycaprolactone scaffolds designed and fabricated via fused deposition modeling, 203

Ignatius, A. A.
—; Schmidt, C.; Kaspar, D.; Claes, L. E.: *In vitro* biocompatibility of resorbable experimental glass ceramics for bone substitutes, 285
Indovina, P. L. See Rainaldi, G., 104
—; See Filippini, P., 338
Inoue, H. See Matsunaga, T., 313
Ishikawa, K. See Ueyama, Y., 652

Jensen, T. B. See Lind, M., 89
Jianxin, W. See Cong, Z., 28
Jordan, N. D.
—; Bassett, D. C.; Olley, R. H.; Smith, N. G.: In-depth morphological changes and embrittlement near the wear surface of UHMWPE inserts from uncemented hip systems, 158

Kam, L.
—; Boxer, S. G.: Cell adhesion to protein-micropatterned-supported lipid bilayer membranes, 487
Kao, W. J.
—; Lee, D.; Schense, J. C.; Hubbell, J. A.: Fibronectin modulates macrophage adhesion and FBGC formation: The role of RGD, PHSRN, and PRRARV domains, 79
Kaplan, D. S. See Moore, M. A., 257
Kaspar, D. See Ignatius, A. A., 285
Kikuchi, A. See Yamato, M., 137
Kim, B.-S. See Pariente, J.-L., 33
Kim, H.-M. See Takadama, H., 185
Kim, S. W. See Park, K.-H., 72
Kishen, A.
—; Asundi, A.: Investigations of thermal property gradients in the human dentine, 121
Kitamura, Y. See Shinzato, S., 277
Klockars, M. See Lindfors, N. C., 613
Kobayashi, M.
—; Toguchida, J.; Oka, M.: Study on the lubrication mechanism of natural joints by confocal laser scanning microscopy, 645
Kojo, T. See Matsunaga, T., 313
Kokubo, T. See Nishio, K., 164
—; See Takadama, H., 185
—; See Shinzato, S., 277
Korkusuz, F.
—; Korkusuz, P.; Ekşioğlu, F.; Gürsel, İ.; Hasırcı, V.: *In vivo* response to

biodegradable controlled antibiotic release systems, 217
Korkusuz, P. See Korkusuz, F., 217
Kowolik, M. J. See Moore, M. A., 257
Koyama, T. See Ueyama, Y., 652
Koyama, Y. See Yamaguchi, I., 20
Krijgsman, B. See Seifalian, A. M., 637
Krygier, J. J. See Catelas, I., 320
Ku, Y. See Lee, S. J., 295
Kwon, O. H. See Yamato, M., 137

Langer, R. See Martin, I., 229
Laurencin, C. T. See Botchwey, E. A., 242
Lee, D. See Kao, W. J., 79
Lee, D. H.
—; Park, J.-C.; Suh, H.: Synergistic induction of cyclooxygenase-II by bacterial lipopolysaccharide in combination with particles of medical device materials in a murine macrophage cell line J774A.1, 547
Lee, S. J.
—; Park, Y. J.; Park, S. N.; Lee, Y. M.; Seol, Y. J.; Ku, Y.; Chung, C. P.: Molded porous poly (L-lactide) membranes for guided bone regeneration with enhanced effects by controlled growth factor release, 295
Lee, T. M.
—; Wang, B. C.; Yang, Y. C.; Chang, E.; Yang, C. Y.: Comparison of plasma-sprayed hydroxyapatite coatings and hydroxyapatite/tricalcium phosphate composite coatings: *In vivo study*, 360
Lee, Y. M. See Lee, S. J., 295
Lemos, R. See Santa-Comba, A., 396
Levine, E. M. See Botchwey, E. A., 242
Liang, H.-F. See Sung, H.-W., 538
Liang, I-L. See Sung, H.-W., 538
Lima, J.
—; Sousa, S. R.; Ferreira, A.; Barbosa, M. A.: Interactions between calcium, phosphate, and albumin on the surface of titanium, 45
Lin, J.-C. See Tsai, M.-Y., 554
Lind, M.
—; Overgaard, S.; Jensen, T. B.; Song, Y.; Goodman, S. B.; Bünger, C.; Søballe, K.: Effect of osteogenic protein 1/collagen composite combined with impacted allograft around hydroxyapatite-coated titanium alloy implants is moderate, 89
Lindfors, N. C.
—; Klockars, M.: Immunoglobulin enhances the bioactive-glass-induced chemiluminescence response of human polymorphonuclear leukocytes, 613
Liu, Y. See Boyan, B. D., 350
Liu, Z. Y. See Wang, C.-X., 587
Lohmann, C. H. See Boyan, B. D., 350
Lu, J. See Han, Y., 596
Luk, A. S.
—; Winet, H.; Bao, J. Y.: Effect of polymethylmethacrylate particles on mature bone in the optical bone chamber, 177

Mackay, A. J. See Martin, I., 229
Mano, T. See Ueyama, Y., 652
Martin, I.
—; Shastri, V. P.; Padera, R. F.; Yang, J.; Mackay, A. J.; Langer, R.; Vunjak-Novakovic, G.; Freed, L. E.: Selective differentiation of mammalian bone marrow stromal cells cultured on three-dimensional polymer foams, 229
Matsuda, T. See Sonoda, H., 266
—; See Brodbeck, W. G., 661
Matsumura, T. See Ueyama, Y., 652
Matsunaga, T.
—; Kojo, T.; Tsujisawa, T.; Fukuizumi, T.; Wada, S.; Uchida, Y.; Inoue, H.: Preferential degradation of osteoclasts by titanium tetrachloride, 313
Matter, H.-P.
—; Garrell, T. v.; Bilderbeek, U.; Mittelmeier, W.: Biomechanical examinations of cancellous bone concerning the influence of duration and temperature of cryopreservation, 40
Maus, U. See Niedhart, C., 530
McLoughlin, S. W. See Wheeler, D. L., 603
Mecheri, B. See Filippini, P., 338
Medley, J. B. See Catelas, I., 320
Medley, J. J. See Catelas, I., 330
Meguid, S. A. See Simmons, C. A., 63
Melican, M. C.
—; Zimmerman, M. C.; Dhillon, M. S.; Ponnambalam, A. R.; Curodeau, A.; Parsons, J. R.: Three-dimensional printing and porous metallic surfaces: A new orthopedic application, 194
Mergner, W. J. See Salunke, N. V., 236
Merritt, K. See Tomazic-Jezic, V. J., 523
Mittelmeier, W. See Matter, H.-P., 40
Miyoshi, H. See Yang, T. H., 379
Mizuno, S. See Allemann, F., 13
Monma, H. See Yamaguchi, I., 20
—; See Ohta, K., 409
Montfort, M. J. See Wheeler, D. L., 603
Mooney, D. J. See Chang, S. C. N., 503
Moore, M. A.
—; Kaplan, D. S.; Picciolo, G. L.; Wallis, R. R.; Kowolik, M. J.: Effect of cellulose acetate materials on the oxidative burst of human neutrophils, 257
Murai, T. See Haishima, Y., 424

Nagatsuka, H. See Ueyama, Y., 652
Nakagawa, Y. See Haishima, Y., 424
Nakamura, A. See Haishima, Y., 424
Nakamura, T. See Nishio, K., 164
—; See Takadama, H., 185
—; See Shinzato, S., 277
Nakayama, Y. See Sonoda, H., 266
—; See Brodbeck, W. G., 661
Nazhat, S. N. See De Santis, R., 629
Neo, M. See Nishio, K., 164
Ng, K. W. See Hutmacher, D. W., 203
Nicolais, L. See De Santis, R., 629
Niedhart, C.
—; Maus, U.; Redmann, E.; Siebert, C. H.: *In vivo* testing of a new *in situ* setting β-tricalcium phosphate cement for osseous reconstruction, 530
Nishio, K.
—; Neo, M.; Akiyama, H.; Okada, Y.; Kokubo, T.; Nakamura, T.: Effects of apatite and wollastonite containing glass-ceramic powder and two types of alumina powder in composites on osteoblastic differentiation of bone marrow cells, 164
Noble, M. D. See Biran, R., 1

Ohshima, N. See Yang, T. H., 379
Ohta, K.
—; Monma, H.; Takahashi, S.: Adsorption characteristics of proteins on calcium phosphates using liquid chromatography, 409
Oka, M. See Kobayashi, M., 645
Okada, Y. See Nishio, K., 164
Okano, T. See Yamato, M., 137
Olley, R. H. See Jordan, N. D., 158
Oréfice, R. L.
—; Hench, L. L.; Clark, A. E.; Brennan, A. B.: Novel sol-gel bioactive fibers, 460
Overgaard, S. See Lind, M., 89

Padera, R. F. See Martin, I., 229
Pariente, J.-L.
—; Kim, B.-S.; Atala, A.: *In vitro* biocompatibility assessment of naturally derived and synthetic biomaterials using normal human urothelial cells, 33
Park, H. See Gemeinhart, R. A., 54
Park, J.-C. See Lee, D. H., 547
Park, K. See Gemeinhart, R. A., 54
Park, K.-H.
—; Kim, S. W.; Bae, Y. H.: Interaction of sulfonylurea-conjugated polymer with insulinoma cell line of MIN6 and its effect on insulin secretion, 72
Park, S. N. See Lee, S. J., 295
Park, T. G. See Yoon, J. J., 401
Park, Y. J. See Lee, S. J., 295
Parsons, J. R. See Melican, M. C., 194
Pauvert, B. See Serraj, S., 566
Pereira, A. See Santa-Comba, A., 396
Petit, A. See Catelas, I., 320
—; See Catelas, I., 330
Picciolo, G. L. See Moore, M. A., 257
Pilliar, R. M. See Simmons, C. A., 63
Pinto, M. See Santa-Comba, A., 396
Plantinga, J. A. See van Wachem, P. B., 368
Poitras, M. S. See Hunter, G. K., 496
Polak, J. M. See Xynos, I. D., 151
Pollack, S. R. See Botchwey, E. A., 242
Ponnambalam, A. R. See Melican, M. C., 194
Poot, A. A. See van Wachem, P. B., 368
Pottinger-Cooper, E. See Sefton, M. V., 447
Prisco, D. See De Santis, R., 629
Punshon, G. See Seifalian, A. M., 637

Qian, F.
—; Szymanski, A.; Gao, J.: Fabrication and characterization of controlled release poly(D,L-lactide-*co*-glycolide) millirods, 512

Rainaldi, G.
—; Filippini, P.; Ferrante, A.; Indovina, P. L.; Santini, M. T.: Fibronectin facilitates adhesion of K562 leukemic cells normally growing in suspension to cationic surfaces, 104
—; See Filippini, P., 338
Rao, G. H. R. See Das, G. S., 96
Ray, R. B. See Agrawal, C. M., 141
Redmann, E. See Niedhart, C., 530
Rengo, S. See De Santis, R., 629
Riccitiello, F. See De Santis, R., 629
Rizzi, S. C.
—; Heath, D. J.; Coombes, A. G. A.; Bock, N.; Textor, M.; Downes, S.: Biodegradable polymer/hydroxyapatite composites: Surface analysis and initial attachment of human osteoblasts, 475
Ross, E. A.
—; Branham, M. L.; Tebbett, I. R.: High mass clearance of autoantibodies from a murine model of lupus nephritis by immunoadsorption using star-configured polyethylene glycols, 114
Rowley, J. A. See Chang, S. C. N., 503
Roy, A. K. See Chang, S. C. N., 503

Salacinski, H. J. See Seifalian, A. M., 637
Salunke, N. V.
—; Topoleski, L. D. T.; Humphrey, J. D.; Mergner, W. J.: Compressive stress-relaxation of human atherosclerotic plaque, 236
Santa-Comba, A.
—; Pereira, A.; Lemos, R.; Santos, D.; Amarante, J.; Pinto, M.; Tavares, P.; Bahia, F.: Evaluation of carboxymethylcellulose, hydroxypropylmethylcellulose, and aluminium hydroxide as potential carriers for rhBMP-2, 396
Santini, M. T. See Rainaldi, G., 104
—; See Filippini, P., 338
Santos, D. See Santa-Comba, A., 396
Savarino, L. See Cenni, E., 131
Sawyer, A. See Sefton, M. V., 447
Schantz, T. See Hutmacher, D. W., 203
Schense, J. C. See Kao, W. J., 79
Schmidt, C. See Ignatius, A. A., 285
Schwartz, Z. See Boyan, B. D., 350
Sefton, M. V.
—; Perspective on hemocompatibility testing, 445
—; Sawyer, A.; Gorbet, M.; Black, J. P.; Cheng, E.; Gemmell, C.; Pottinger-Cooper, E.: Does surface chemistry affect thrombogenicity of surface modified polymers? 447
Seifalian, A. M.
—; Salacinski, H. J.; Punshon, G.; Krijgsman, B.; Hamilton, G.: A new technique for measuring the cell growth and metabolism of endothelial cells seeded on vascular prostheses, 637
Seol, Y. J. See Lee, S. J., 295
Serraj, S.
—; Boudeville, P.; Pauvert, B.; Terol, A.: Effect on composition of dry mechanical grinding of calcium phosphate mixtures, 566
Shastri, V. P. See Martin, I., 229
Shinzato, S.
—; Nakamura, T.; Kokubo, T.; Kitamura, Y.: Bioactive bone cement: Effect of silane treatment on mechanical properties and osteoconductivity, 277
Shive, M. S. See Brodbeck, W. G., 661
Siebert, C. H. See Niedhart, C., 530
Simmons, C. A.
—; Meguid, S. A.; Pilliar, R. M.: Mechanical regulation of localized and appositional bone formation around bone-interfacing implants, 63
Sisk, M. See Boyan, B. D., 350
Smith, N. G. See Jordan, N. D., 158
Søballe, K. See Lind, M., 89
Song, Y. See Lind, M., 89
—; See Farber, A., 433
Sonoda, H.
—; Takamizawa, K.; Nakayama, Y.; Yasui, H.; Matsuda, T.: Small-diameter compliant arterial graft prosthesis: Design concept of coaxial double tubular graft and its fabrication, 266
Sousa, S. R. See Lima, J., 45
Stea, S. See Cenni, E., 131
Suh, H. See Lee, D. H., 547
Sung, H.-W.
—; Liang, I-L.; Chen, C.-N.; Huang, R.-N.; Liang, H.-F.: Stability of a biological tissue fixed with a naturally occurring crosslinking agent (genipin), 538
Suzuki, K. See Ueyama, Y., 652
Sylvia, V. L. See Boyan, B. D., 350
Szymanski, A. See Qian, F., 512

Takadama, H.
—; Kim, H.-M.; Kokubo, T.; Nakamura, T.: An X-ray photoelectron spectroscopy study of the process of apatite formation on bioactive titanium metal, 185
Takahashi, S. See Ohta, K., 409
Takakuda, K. See Yamaguchi, I., 20
Takamizawa, K. See Sonoda, H., 266
Tan, K. C. See Hutmacher, D. W., 203
Tanaka, J. See Yamaguchi, I., 20
Tavares, P. See Santa-Comba, A., 396
Tebbett, I. R. See Ross, E. A., 114
Teoh, S. H. See Hutmacher, D. W., 203

Terol, A. See Serraj, S., 566
Textor, M. See Rizzi, S. C., 475
Tian, J. M. See Yang, Y. Z., 442
Tian, J. T. See Yang, Y. Z., 442
Tobias, G. See Chang, S. C. N., 503
Toguchida, J. See Kobayashi, M., 645
Tokuchi, K. See Yamaguchi, I., 20
Tomazic-Jezic, V. J.
—; Merritt, K.; Umbreit, T. H.: Significance of the type and the size of biomaterial particles on phagocytosis and tissue distribution, 523
Topoleski, L. D. T. See Salunke, N. V., 236
Tresco, P. A. See Biran, R., 1
Tsai, M.-Y.
—; Lin, J.-C.: Surface characterization and platelet adhesion studies of self-assembled monolayer with phosphonate ester and phosphonic acid functionalities, 554
Tsujisawa, T. See Matsunaga, T., 313

Uchida, Y. See Matsunaga, T., 313
Ueyama, Y.
—; Ishikawa, K.; Mano, T.; Koyama, T.; Nagatsuka, H.; Matsumura, T.; Suzuki, K.: Initial tissue response to anti-washout apatite cement in the rat palatal region: Comparison with conventional apatite cement, 652
Umbreit, T. H. See Tomazic-Jezic, V. J., 523
Underhill, T. M. See Hunter, G. K., 496

Vacanti, C. A. See Chang, S. C. N., 503
van Aken, W. G. See van Wachem, P. B., 368
van Luyn, M. J. A. See van Wachem, P. B., 368
—; See van Wachem, P. B., 415
van Wachem, P. B.
—; Plantinga, J. A.; Wissink, M. J. B.; Beernink, R.; Poot, A. A.; Engbers, G. H. M.; Beugeling, T.; van Aken, W. G.; Feijen, J.; van Luyn, M. J. A.: *In vivo* biocompatibility of carbodiimide-crosslinked collagen matrices: Effects of crosslink density, heparin immobilization, and bFGF loading, 368
—; Brouwer, L. A.; Zeeman, R.; Dijkstra, P. J.; Feijen, J.; Hendriks, M.; Cahalan, P. T.; van Luyn, M. J. A.: Tissue reactions to epoxy-crosslinked porcine heart valves post-treated with detergents or a dicarboxylic acid, 415
Vunjak-Novakovic, G. See Martin, I., 229

Wada, S. See Matsunaga, T., 313
Wallis, R. R. See Moore, M. A., 257
Wang, B. C. See Lee, T. M., 360
Wang, C.-X.
—; Chen, Z. Q.; Wang, M.; Liu, Z. Y.; Wang, P. L.: Ion-beam-sputtering/mixing deposition of calcium phosphate coatings. I. Effects of ion-mixing beams, 587
Wang, M. See Wang, C.-X., 587
Wang, P. L. See Wang, C.-X., 587
Webb, K. See Biran, R., 1
Wheeler, D. L.
—; Montfort, M. J.; McLoughlin, S. W.: Differential healing response of bone adjacent to porous implants coated with hydroxyapatite and 45S5 bioactive glass, 603
Wilson, G. J. See Courtman, D. W., 576
Wilson, R. F. See Das, G. S., 96
Winet, H. See Luk, A. S., 177
Wissink, M. J. B. See van Wachem, P. B., 368

Xingdong, Z. See Cong, Z., 28
Xu, K. See Han, Y., 596
Xynos, I. D.
—; Edgar, A. J.; Buttery, L. D. K.; Hench, L. L.; Polak, J. M.: Gene-expression profiling of human osteoblasts following treatment with the ionic products of Bioglass® 45S5 dissolution, 151

Yagami, T. See Haishima, Y., 424
Yamaguchi, I.
—; Tokuchi, K.; Fukuzaki, H.; Koyama, Y.; Takakuda, K.; Monma, H.; Tanaka, J.: Preparation and microstructure analysis of chitosan/hydroxyapatite nanocomposites, 20
Yamato, M.
—; Kwon, O. H.; Hirose, M.; Kikuchi, A.; Okano, T.: Novel patterned cell coculture utilizing thermally responsive grafted polymer surfaces, 137
Yang, C. Y. See Lee, T. M., 360
Yang, J. See Martin, I., 229
Yang, T. H.
—; Miyoshi, H.; Ohshima, N.: Novel cell immobilization method utilizing centrifugal force to achieve high-density hepatocyte culture in porous scaffold, 379
Yang, Y. C. See Lee, T. M., 360
Yang, Y. Z.
—; Tian, J. M.; Tian, J. T.: Chen, Z. Q.: Surface modification of titanium through amino group implantation, 442
Yasui, H. See Sonoda, H., 266
Yates, K. E. See Allemann, F., 13
Yehia, A. See El-Ghannam, A., 387
Yoon, J. J.
—; Park, T. G.: Degradation behaviors of biodegradable macroporous scaffolds prepared by gas foaming of effervescent salts, 401

Zaleske, D. See Allemann, F., 13
Zeeman, R. See van Wachem, P. B., 415
Zein, I. See Hutmacher, D. W., 203
Zhang, M. See Zhang, Y., 304
Zhang, Y.
—; Zhang, M.: Synthesis and characterization of macroporous chitosan/calcium phosphate composite scaffolds for tissue engineering, 304
Zimmerman, M. C. See Melican, M. C., 194
Zukor, D. J. See Catelas, I., 320
—; See Catelas, I., 330

Journal of Biomedical Materials Research
Subject Index—Volume 55

Acrylates, 618
Adsorption, 409
Alamar blue™, 637
Albumin, 613
Albumin adsorption, 45
Alginate, 503
Aluminium hydroxide, 396
Amino groups, 442
Angioplasty, 236
Anti-washout apatite cement, 652
Apatite, 185
Apoptosis, 313, 661
Arachidonic acid, 547
Articular cartilage, 645
Artificial liver, 379
Assay, 637
Atherosclerosis, 236
AW-GC, 164

β-TCP, 304
β-tricalcium phosphate, 530
Ball milling, 566
BFGF, 368
Bioactive bone cement, 164
Bioactive fiber sheets, 468
Bioactive glass, 151, 277, 387, 613
Bioactive glass coatings, 603
Bioactive materials, 460
Bioactivity, 185, 304, 468, 618
Biocompatibility, 33, 257, 285, 368, 652, 661
Biodegradable, 141
Biodegradable delivery systems, 217
Biodegradable polymer, 401
Biodegradable polymers, 475
Biodegradable scaffolds, 229
Biodegradation, 304
Bioglass®, 151
Biograft, 576
Biological tissue, 538
Biomaterials, 523, 547
Biomechanics, 40
Bioprostheses, 415
Bioreactor, 242
Blood compatibility, 554
Bone, 242, 475
Bone apposition, 360
Bone bank, 40
Bone cell differentiation, 338
Bone cement, 131
Bone chamber, 177
Bone grafts, 40
Bone healing, 360
Bone/implant interface, 194
Bone ingrowth, 194, 603
Bone marrow cell, 164
Bone replacement, 496
Bone resorption, 313
Bone substitute, 530
Bone tissue engineering, 530
Bovine serum albumin, 104

Calcification, 415
Calcigenesis, 496
Calcium oxide, 566
Calcium phosphate, 409
Calcium phosphate, 45, 530
Calcium phosphate ceramic, 285
Calcium phosphate coating, 587
Calcium phosphate invert glass, 304
Calcium phosphates, 566
Calpain, 151
Carboxymethylcellulose, 396
Cartilage-specific gene expression, 13
CD44, 151
CDKN1A, 151
cDNA microarray, 151
Cell adhesion, 104, 487
Cell culture, 285, 587
Cells, 141
Cellulose acetate, 257
Cement, 566
Ceramic cylinders, 28
Characterization, 320, 330
Chemiluminescence, 613
Chitosan, 20
Chitosan scaffold, 304
Chondrocyte, 503
Chondrogenesis, 13
Coaxial double tubular graft, 266
Coculture, 137
Coefficient of thermal expansion, 121
Collagen, 368
Collagen binding, 496
Complement, 447
Compliance matching, 266
Composites, 618
Compression, 54
Compression–heat molding, 512
Confocal laser scanning microscopy (CLSM), 645
Conjugate polymer, 72
Controlled release, 295
Controlled release drug delivery, 512
Conventional apatite cement, 652
Corrosion, 387
Crosslinking, 576
Cryopreservation, 40
Crystallization, 387
Cyclin K, 151
Cyclooxygenase, 350
Cyclooxygenase-II, 547

δ-alumina, 164
DAD1, 151
Decorin, 496
Degradation, 401
Design and fabrication of three-dimensional scaffolds, 203
Detergents, 415
Dicarboxylic acid, 415
Differentiation, 350
Digestion protocols, 320, 330
3-dimensional hyaluronan/collagen scaffolds, 13
Dissolution, 596
Dissolution rate, 587
Drug delivery, 96

Electrochemical techniques, 45
Embrittlement, 158
Endothelial cell, 131, 637
Endothelial cells, 368, 487
Endotoxin, 424
Epoxy crosslinking, 415
ESEM, 475
Extracellular matrix proteins, 79, 104

Facial implants, 503
Fatigue, 629
Fibers, 460
Fibronectin, 1, 104
Finite element analysis, 63
Flow cytometry, 447

Foreign-body giant cells, 661
Fragment reattachment, 629
Functional group, 338

G1/S specific cyclin D, 151
Genipin, 538
Glass ceramics, 285
Glutaraldehyde, 538
Growth factors, 28, 229
Guided bone regeneration, 295

HA coating, 360
HA/TCP coating, 360
HCA, 468
Hemodialysis, 257
Heparin, 368
Hepatocyte, 137, 379
Hip cups, 158
Hip implants, 320, 330
Histology, 523
Histones, 114
Human osteoblasts, 151, 475
Hyaluronic acid, 645
Hydrogel, 54
Hydroxyapatite, 20, 475, 596, 603, 618
Hydroxypropylmethylcellulose, 396

IL-4, 661
Immobilization, 379
Immune responses, 523
Immunoadsorption, 114
Immunogenicity, 576
Immunoglobulin, 613
Implantation, 442
Implants, 158
Inflammation, 79, 547
Injection molding, 503
Insulinotropic agent, 72
Integrin β1, 151
Integrins, 79
Interfacial shear strength, 194
in vitro engineered articular cartilage, 13
Ion-beam-sputtering/mixing deposition, 587
Isolation, 320, 330

J774A.1, 547

K562 leukemic cells, 104

LAL test, 424
Latex, 424
Leukocytes, 79
Lipopolysaccharide, 424
Liquid chromatography, 409
Liquid crystal, 645
Local antiinfective agents, 217
Local factors, 350
Lubrication mechanism, 645
Lupus nephritis, 114

Macrophage, 547
Macrophages, 661
Mechanical properties, 236
Mechanical property, 20, 277
Mechanical strength, 629
Mechanochemical reaction, 566
Mechanoregulation, 63
Mesenchymal stem cells, 229
Metal–metal wear particles, 320, 330
Methyl methacrylate, 131
Microcontact printing of proteins, 487
Micropatterning, 487
Micropored graft, 266
Microspheres, 96
MIN6 cells, 72
MMP-2, 151
MMP-4, 151
Moiré interferometer, 121
Molded membrane, 295

Nanocomposite, 20
Natural biomaterials, 33
Neurons, 1
Neutrophils, 257

Orthopedic implant surfaces, 194
Osseointegration, 63
Osteoblastic differentiation, 164
Osteoblasts, 313, 350
Osteoclasts, 313
Osteoconductivity, 277
Osteomyelitis, 217
Osteonectin, 338
Osteopontin, 338
Oxidative response, 257

Particles, 523
Periosteum, 28
Phosphonate ester, 554
Phosphonic acid, 554
Plaque, 236
Plasma treatment, 447
Plasma-sprayed implant, 63
Platelet adhesion, 554
Platelet-derived growth factor-BB, 295
PLGA, 401
PMMA, 177
Polycaprolactone, 203
Poly(D,L-lactide-*co*-glycolide), 512
Polyethylene, 158
Polyethylene glycol, 114
Polyethylene glycols, 79
Poly(ethylene glycol), 96
Polyethylene oxide, 1
Poly(hydroxybutyrate-*co*-hydroxyvalerate), 217
Poly(lactic acid), 96
Poly(lactide-*co*-glycolide), 242
Poly (L-lactide)-tricalcium phosphate (TCP) membrane, 295

Polymer characterization, 512
Polymers, 141, 217
Poly(methyl methacrylate) (PMMA), 277
Polymorphonuclear leukocyte, 613
Poly(*N*-isopropylacrylamide), 137
Pore structure, 54
Porous-surfaced implant, 63
Prostaglandin, 547
Prosthesis, 637
Protein adsorption, 104, 387
Protein, 409
Pull-out test, 40
Pyrogenicity, 424

Rat palatal region, 652
RCL, 151
Residual stress, 596
Resorption, 177
RhBMP-2, 396
RhBMP-2 carriers, 396

Saos-2 cells, 338
Scaffold, 242, 379
Scaffolds, 141, 401
Segmental bone defects, 28
Segmented polyurethane, 266
Self-assembled monolayer, 554
Self-hardening bone cement, 530
Self-organization, 20
Shear strength, 360
Sialoprotein, 496
Silane surface modification, 338
Silane treatment, 277
Silica fibers, 468
Silicon, 151
Simulated body fluid, 185
Skeletal tissue engineering, 229
Sol-gel, 460, 468
Specific interaction, 72
Stability, 538
Stress relaxation, 236
Sulfonylurea, 72
Superporous hydrogel, 54
Supported lipid bilayers, 487
Surface characterization, 554
Surface coating, 1
Surface modification, 141, 442
Surface roughness, 350
Sustained release, 217
Swelling, 54
Synergistic, 547
Synovial fluid, 645
Synthetic polymers, 33
Systemic lupus erythematosus, 114

Taxol, 96
Temperature-responsive culture surfaces, 137
Thermal adaptation, 121
Thermal gradients, 121

Thermal strain, 121
Three-dimensional printing, 194
Thrombogenicity, 447
TIMP-1, 151
TIMP-2, 151
Tissue differentiation, 63
Tissue distribution, 523
Tissue engineering, 1, 13, 137, 203, 242, 379, 503
Tissue factor, 131
Tissue response, 652
Tissue scaffold, 468
Titanium, 45, 313, 350, 442, 587
Titanium implants, 603
Titanium metal, 185
Trabecular thickness, 603
Tricalcium phosphate, 285

Urothelial cells, 33

Vascular graft, 368
Vascular grafts, 637
Vascular prosthesis, 576
Vascularity, 177
Viability, 637
Viscoelastic, 460

Wear, 158
Wear particles, 177
Wollastonite, 618

XPS, 45
X-ray photoelectron spectroscopy (XPS), 185

ζ potential, 387
Zeta potential, 409